Claim Listing

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-45. Cancelled.

46. (Currently Amended) A process for agglomerating biologically active microorganisms comprising:

contacting a first enteropathogenic microorganism with a first particle having an average diameter between about 30 nanometers and about 5 micrometers, the first particle comprising a polystyrene hydrophobic polymeric core and multiple polyethylene glycol hydrophilic polymeric linking agents bound to the polystyrene hydrophobic polymeric core, the polyethylene glycol hydrophilic linking agents having a degree of polymerization of between about 10 and about 200, the particle further comprising D-mannose ~~a biofunctional material~~ bound to the hydrophilic linking agents, the D-mannose ~~biofunctional material~~ being bound to the hydrophilic linking agent at a distance from the hydrophobic core, the D-mannose ~~biofunctional material~~ comprising a first binding site for a first adhesin present on the surface of the enteropathogenic microorganism, wherein the enteropathic microorganism is *E. coli* or *C. jejuni*;

binding the first adhesin of the first enteropathogenic microorganism to the first binding site of the D-mannose ~~biofunctional material~~ to form a particle /microorganism complex; and

binding a second adhesin of a second enteropathogenic microorganism to a second binding site of the biofunctional material of the particle/microorganism complex, wherein the second enteropathogenic microorganism is *E. coli* or *C. jejuni* and thus agglomerating the first and second enteropathogenic microorganisms.

47. (Previously Presented) The process of claim 46, further comprising

contacting the particle/microorganism complex with a second particle, the second particle being structurally identical to the first particle; and

binding a third adhesin of the first enteropathogenic microorganism to a binding site of the second particle.

48-52. (Cancelled)

53. (Previously Presented) The process of claim 46, wherein the adhesin of the first enteropathogenic microorganism binds to the first binding site via an attachment/effacing binding mechanism.

54. (Cancelled)

55. (Previously Presented) The process of claim 46, wherein the first enteropathogenic microorganism and the second enteropathogenic microorganism are the same.

56. (Previously Presented) The process of claim 46, wherein the first enteropathogenic microorganism and the second enteropathogenic microorganism are different.

57. (Previously Presented) The process of claim 46, wherein the first binding site and the second binding site are structurally the same.

58. (Previously Presented) The process of claim 46, wherein the first binding site and the second binding site are structurally different.

59 (Previously Presented) The process of claim 46, further comprising releasing the first particle from an encapsulation in the area of the first enteropathogenic organism.

60. (Previously Presented) The process of claim 46, wherein the particle /microorganism complex is formed within the digestive system of an animal.

61-75. (Cancelled)